2-Gates Fish Protection Demonstration Project
Frequently Asked Questions

What is the 2-Gates Fish Protection Demonstration Project (Demonstration Project)?
The Demonstration Project is an experiment developed by the Metropolitan Water District of Southern California and the San Luis & Delta-Mendota Water Authority to test alternative ways of protecting Delta Smelt (smelt). This 5-year experiment is designed to modify flows in the Sacramento-San Joaquin Delta (Delta) to reduce entrainment of smelt and other sensitive aquatic species in Central Valley Project (CVP) and State Water Project (SWP) export pumps.

How is the Demonstration Project different from other projects in the Delta?
The Demonstration Project is a 5-year experiment that is unique and separate from other activities taking place in the Delta, such as the Bay Delta Conservation Plan. There have been proposals for similar permanent projects, and this Demonstration Project should provide important information to determine if a permanent project would be effective.

Why are local, State, and Federal agencies considering the Demonstration Project?
The abundance of smelt populations in the Delta is considered to be an indicator of the overall health of the Delta ecosystem. Several factors are thought to contribute to the decline of smelt populations, such as environmental contaminants, changes in the abundance and composition of food organisms, and competition and predation from invasive species. In addition, entrainment of smelt in the CVP and SWP pumps has been determined to be a factor in smelt decline and has resulted in recent changes to CVP and SWP operations. Research suggests that the pre-spawning migration of smelt is tied to the amount of sediment and suspended particles in the water (turbidity). The participating local, State, and Federal agencies are considering the Demonstration Project to obtain a better understanding of the relationship of smelt behavior to turbidity and to test whether modifying flows will affect turbidity, and, therefore, smelt movement and entrainment.

Why doesn't the Government turn off the pumps to help the Delta and the smelt?
The Bureau of Reclamation's mission is to deliver and manage water resources for cities, agriculture, and the environment, including refuges. Water pumped from Reclamation's C.W. "Bill" Jones Pumping Facility near Tracy is provided to water contractors with whom Reclamation has legally binding agreements for delivery of that water. It is Reclamation's responsibility to operate the CVP, which spans from Redding to Bakersfield, and to meet the CVP's critical requirements.

If you can't shut off the pumps, why don't you screen them?
Reclamation's C.W. "Bill" Jones Pumping Facility's intake is screened at the Tracy Fish Collection Facility (TFCF), built in the 1950s as part of the CVP. The TFCF is a louver-type fish screening and collection facility designed to divert small fish away from the intake channel and into the TFCF's holding tanks where they are collected and transported by truck to the Delta near Antioch and Sherman Island. The louver system effectively prevents entrained fish from being pulled into the intake flows of the pumps, which can be up to 5,000 cubic feet per second. However, smelt are so small and are such weak swimmers they are unable to resist the high intake currents, and a large percentage are pulled through the louvers anyway or are lost to predator fish in and around the TFCF. Because of the high entrainment flows and lack of

adequate sweeping velocities out in front of the TFCF, it is not plausible to simply screen or bypass the entrained fish away from the intake to the pumping plant as they would simply be entrained again. Fish have to be salvaged (bypassed into holding tanks) and reintroduced into the Delta estuary via fish haul trucks and remote release sites.

Will the Demonstration Project be permanent?

The proposed Demonstration Project would be a temporary 5-year experiment. The designs, environmental documents, and permitting provide for the removal of the gate facilities at the end of the 5-year experiment.

Does the Demonstration Project include testing different water export levels?

No. The project is intended to affect the distribution of smelt to prevent entrainment in the CVP and SWP export facilities. Operation of the CVP and SWP is guided in part by location of the smelt. If the gates and their operation are effective and the smelt are not in the vicinity of the pumps, operation of the pumps should be of less concern.

What construction would the Demonstration Project provide for?

The Demonstration Project would include installing two gate facilities: one at Old River between Holland Tract and Bacon Island and one at Connection Slough between Mandeville Island and Bacon Island (see Factsheet map). Construction at these sites would include removing peat material from the channel bottom and replacing it with a layer of gravel, fabricating "Butterfly" gates mounted on two barges, sinking the barges in place, installing sheet pilling, and constructing boat ramps (see Factsheet diagram).

When would the gate facilities be installed?

Installation of the gate facilities would begin in July 2010 with the gate facilities operational by November 2010. Off-site fabrication of the gates could begin in late-fall 2009.

How long would construction at the gate sites take?

Construction at the gate sites is anticipated to take 5 months, from July 2010 to November 2010, with 3 months of that time being in-water construction. Boat passage during construction is being planned for, although there could be some delays. The earliest date for gates to be in place is November 2010.

How would the gate facilities be operated?

December-Early March: Each gate facility would be closed a total of 0.5 to 2.5 hours daily.

Early March-March 31: The Old River gate would close on flood tide (twice daily, about 10 hours total) and would open on ebb and slack tides (about 14 hours total daily). The Connection Slough gate would close about 20 hours total daily and would open during slack tide (about 4 hours total daily).

April 1-May 31: Both gate facilities would be open at all times.

June: The Old River gate would close on flood tide (twice daily, about 10 hours total) and would open on ebb and slack tides (about 14 hours total daily). The Connection Slough gate would close about 20 hours total daily and would open during slack tide (about 4 hours total daily).

July-November: Both gate facilities would be open at all times.

How wide and deep is the opening between the gates?

On Old River, the opening for boats would be 75 feet, with the minimum water depth being 16 feet. On Connection Slough, the opening for boats would be 60 feet, with the minimum water depth being 10 feet.

How would the gates affect boaters in the Delta?

Boaters going through Old River and/or Connection Slough may need to add some time to their trip to allow for moving through the gate facilities, waiting for gates to be opened, for portage around the gates, or to take alternate routes.

Would boaters be noticed of gate closures?

The public would be able to get the most up-to-date information on gate closures/operations by:

- Contacting gate operators via a dedicated VHF channel
- Calling a toll-free telephone number for a recorded message
- Checking the Coast Guard website
- Checking notices to boaters at local marinas
- Reading signage posted in the vicinity of the gate facilities.

When the gates are closed, how would boats get around the gate facilities?

The Demonstration Project would include installing boat ramps at each of the gate facilities. The boat ramps would not be available for public use except to continue navigating past the gates. The boat ramps and trailers would be large enough to accommodate vessels up to 24 feet. An operator would hook and trail the boats around the gates when they are closed. For commercial and emergency vessels, the gates would be opened, at which times recreational vessels in the vicinity could also pass through. Larger boats would need to either take an alternate route or wait until the gates open.

What is the estimated cost of the Demonstration Project?

It is anticipated that the 5-year Demonstration Project costs would be approximately $80 million (cost estimate prepared by the San Luis & Delta-Mendota Water Authority):

Construction	$49 million
Additional Gages	$1 million
Operation & Maintenance	$10 million
Science Investigation Program	$15 million
Deconstruction	$5 million
	$80 million

How do I find out more about the Demonstration Project?

Additional information may be found on our website at www.usbr.gov/mp/2gates.

To be added to a mailing list to receive updates on the Demonstration Project, please contact Ms. Janet Sierzputowski at jsierzputowski@usbr.gov or 916-978-5112 (TDD 916-978-5608).